Features

- Low Leakage Current
- Fast Switching Speed
- Moisture Sensitivity Level 1
- AEC-Q101 Qualified
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. “Green” Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

350mW 250Volt Small Signal Diode

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance(Note2): 357°C/W Junction to Ambient

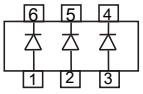
MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
BAS21TUHE3	250V	177V	250V

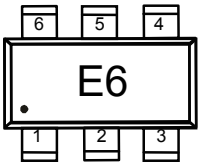
Maximum Ratings @ 25°C Unless Otherwise Specified

Average Rectified Forward Current	$I_{F(AV)}$	225mA	(Note 2)
Forward DC Current	I_{FM}	625mA	T_A=25°C (Note 2)
Non-Repetitive Peak Forward Surge Current	I_{FSM}	9.0A 0.5A	@ t=1us @ t=1s
Power Dissipation	P_{TOT}	350mW	T_A=25°C

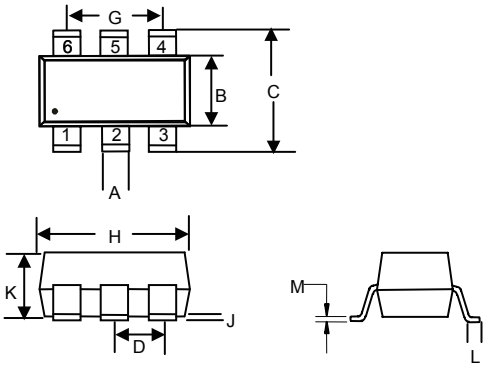
Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Part mounted on FR-4 board with recommended pad layout.

Internal Structure and Marking Code





SOT23-6L



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.012	0.020	0.30	0.50	
B	0.051	0.070	1.30	1.80	
C	0.087	0.126	2.20	3.20	
D	0.037		0.95		TYP.
G	0.074		1.90		TYP.
H	0.106	0.122	2.70	3.10	
J	0.002	0.006	0.05	0.15	
K	0.030	0.051	0.75	1.30	
L	0.012	0.024	0.30	0.60	
M	0.003	0.008	0.08	0.22	

Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	I_R=100μA	250			V
Forward Voltage	V_F	I_F=100mA			1	V
		I_F=200mA			1.25	V
Reverse Current	I_R	V_R=V_{Rmax}			100	nA
		V_R=$V_{Rmax,}$ T_J=150°C			100	μA
Junction Capacitance	C_J	V_R = 0V, f = 1MHz			5	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=30mA, I_{rr}=0.1×I_R,R_L=100Ω			50	ns

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

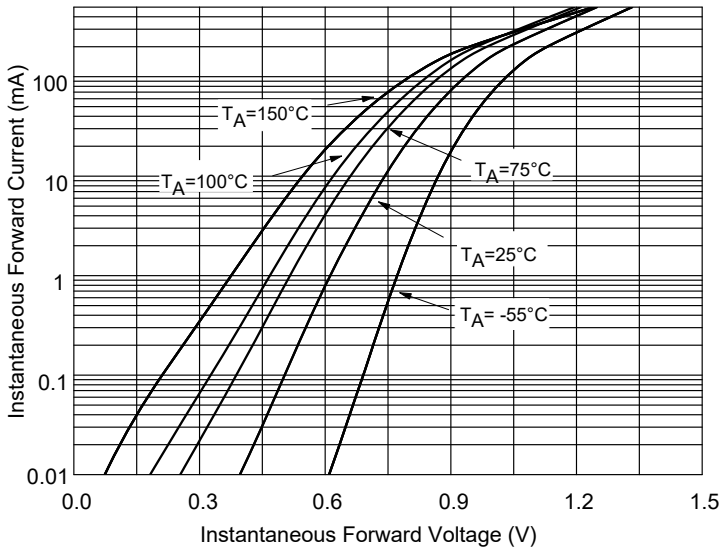


Fig. 2 - Typical Reverse Leakage Characteristics

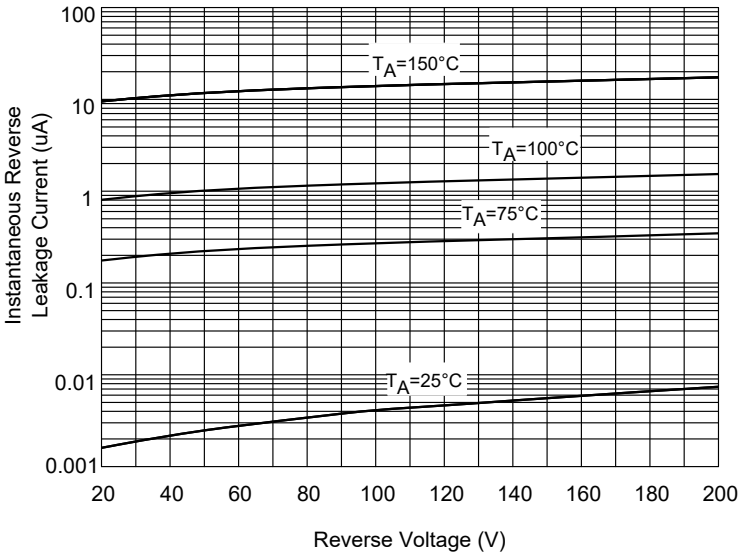


Fig. 3 - Capacitance Characteristics

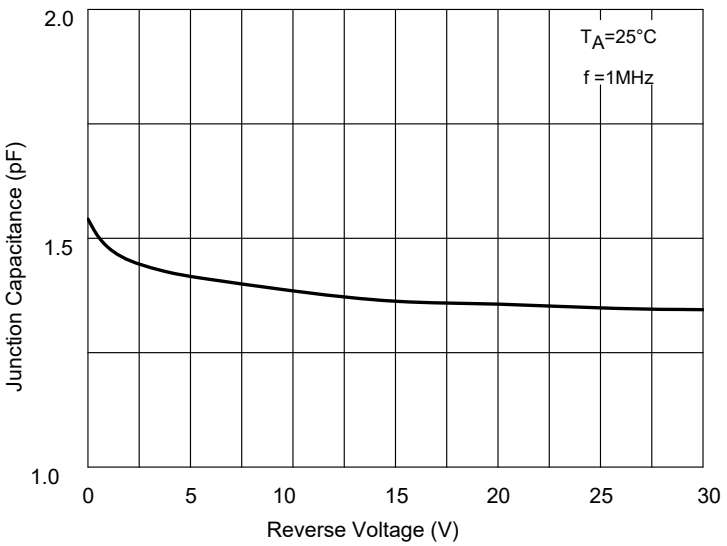
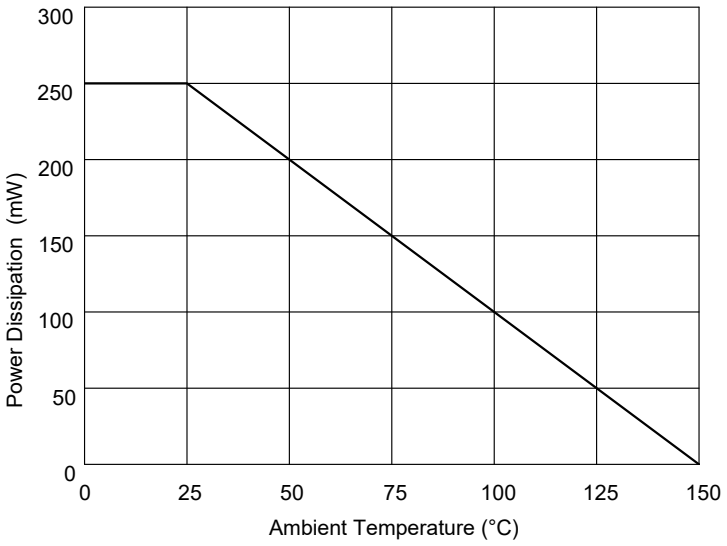


Fig. 4 - Power Derating Curve



Ordering Information

Device	Packing
BAS21TUHE3-TP	Tape&Reel: 3Kpcs/Reel

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